January 1998

Test 1805: Kubota M9000DT Diesel

SUMMARY OF OECD TEST 1805—NEBRASKA SUMMARY 502
KUBOTA M9000DT DIESEL
8 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed—637 rpm)					
80.3 *(59.9)*	2600	5.39 *(20.39)*	0.469 *(0.286)*	14.91 *(2.94)*	
Maximum Power (2 hours)					
81.0 *(60.4)*	2500	5.28 *(19.99)*	0.457 *(0.278)*	15.33 *(3.02)*	
Standard Power Take-off speed (540 rpm)					
79.4 *(59.2)*	2205	4.87 *(18.42)*	0.430 *(0.261)*	16.29 *(3.21)*	
VARYING POWER AND FUEL CONSUMPTION					
80.3 *(59.9)*	2600	5.39 *(20.39)*	0.469 *(0.286)*	14.91 *(2.94)*	Air temperature
69.7 *(52.0)*	2655	4.79 *(18.12)*	0.481 *(0.292)*	14.57 *(2.87)*	66°F *(19°C)*
53.0 *(39.5)*	2685	3.93 *(14.89)*	0.520 *(0.316)*	13.47 *(2.65)*	Relative humidity
35.5 *(26.5)*	2712	3.14 *(11.88)*	0.618 *(0.376)*	11.32 *(2.23)*	87%
18.0 *(13.4)*	2737	2.40 *(9.07)*	0.934 *(0.568)*	7.50 *(1.48)*	Barometer
-- --	2772	1.69 *(6.38)*	-- --	-- --	29.8" Hg *(100.9 kPa)*

Maximum Torque -214.0 lb.-ft. *(290.1 Nm)* at 1500 rpm
Maximum Torque Rise -31.8%
Torque rise at 2100 engine rpm -18%

Location of tests: Institute of Agricultural Machinery Bio-oriented Technology Research Advancement Institution (IAM-Brain) Omiya, Japan

Dates of tests: October, 1998
Operator sound test - December 23, 2005

Manufacturer: Kubota Corporation, Tsukuba Plant Aza, Sakanoshinden, Yawaramura, Tsukubagun, Ibaraki, Japan

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.841 **Fuel weight** 7.00 lbs/gal *(0.839 kg/l)* **Oil SAE** 10W30 **API service classification** CD **Oil consumption for 10 hours** 0.05 lb *(24 gm)* **Transmission and hydraulic lubricant** SAE 75W/80 API GL-3 **Front axle lubricant** SAE 75W/80 API GL-3

ENGINE: Make Kubota Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** WN8847 **Crankshaft** lengthwise **Rated engine speed** 2600 **Bore and stroke** 3.858" x 4.331" *(98.0 mm x 110.0 mm)* **Compression ratio** 21.8 to 1 **Displacement** 202 cu in *(3318 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat

CHASSIS: Type front wheel assist **Serial No.** M900-50389 **Tread width** rear 59.8" *(1520 mm)* to 75.6" *(1920 mm)* front 59.8" *(1520 mm)* to 63.8" *(1620 mm)* **Wheel base** 88.6" *(2250 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.56 *(2.51)* second 2.40 *(3.87)* third 3.72 *(5.99)* fourth 5.03 *(8.09)* fifth 6.42 *(10.33)* sixth 9.90 *(15.93)* seventh 15.26 (*24.55)* eighth 20.67 *(33.26)* reverse 1.55 *(2.49)*, 2.39 *(3.84)*, 3.68 *(5.92)*, 4.98 *(8.01)*, 6.36 *(10.24)*, 9.81 *(15.79)*, 15.11 *(24.32)*, 20.47 *(32.94)* **Clutch** single dry disc operated by foot pedal **Brakes** multiple wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2205 engine rpm **Unladen tractor mass** 6195 lb *(2810 kg)*

DRAWBAR PERFORMANCE
BALLASTED - FRONT DRIVE ENGAGED
FUEL CONSUMPTION CHARACTERISTICS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F (°C) Air cool-ing med	Temp.°F (°C) Air dry bulb	Barom. inch Hg *(kPa)*
75% of Pull at Maximum Power—Five Hours 4th (L4) Gear									
58.2 *(43.4)*	4440 *(19.74)*	4.92 *(7.92)*	2643	3.7	0.554 *(0.337)*	12.64 *(2.49)*	185 *(85)*	79 *(26)*	30.2 *(102.1)*
MAXIMUM POWER IN SELECTED GEARS									
2nd (L2) Gear									
50.4 *(37.6)*	8985 *(39.96)*	2.10 *(3.38)*	2660	15.1	0.610 *(0.371)*	11.47 *(2.26)*	185 *(85)*	82 *(28)*	30.1 *(101.8)*
3rd (L3) Gear									
69.3 *(51.7)*	8185 *(36.42)*	3.18 *(5.11)*	2503	11.6	0.543 *(0.330)*	12.89 *(2.54)*	187 *(86)*	82 *(28)*	30.1 *(101.8)*
4th (L4) Gear									
71.6 *(53.4)*	5915 *(26.32)*	4.54 *(7.31)*	2504	6.1	0.524 *(0.319)*	13.35 *(2.63)*	187 *(86)*	79 *(26)*	30.0 *(101.7)*
5th (H1) Gear									
73.4 *(54.7)*	4640 *(20.63)*	5.93 *(9.54)*	2498	4.0	0.509 *(0.310)*	13.76 *(2.71)*	192 *(89)*	79 *(26)*	30.0 *(101.7)*
6th (H2) Gear									
69.9 *(52.1)*	2815 *(12.53)*	9.31 *(14.98)*	2496	2.1	0.545 *(0.331)*	12.86 *(2.53)*	189 *(87)*	79 *(26)*	30.0 *(101.7)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 4630 lbs *(2100 kg)* 3 point lift capacity. The performance results on this summary were taken from OECD tests conducted under the Code I Test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1805,** Nebraska Summary 502, January 27, 2006.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
J.A. Smith
Board of Tractor Test Engineers

TIRES, BALLAST AND WEIGHT		**With Ballast**	**Without Ballast**
Rear Tires	-No., size, ply & psi *(kPa)*	Two 18.4-30; 6;16 *(108)*	Two 18.4-30; 6;16 *(108)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	2165 lb *(981 kg)*	None
Front Tires	-No., size, ply & psi *(kPa)*	Two 12.4-24: 6; 20 *(138)*	Two 12.4-24; 6; 20 *(138)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	1190 lb *(540 kg)*	None
Height of Drawbar		19.3 in *(490 mm)*	19.7 in *(500 mm)*
Static Weight with Operator	- Rear	5975 lb *(2710 kg)*	4170 lb *(1891 kg)*
	- Front	3740 lb *(1696 kg)*	2190 lb *(994 kg)*
	- Total	9715 lb *(4406 kg)*	6360 lb *(2885 kg)*

TRACTOR SOUND LEVEL WITH CAB	dB(A)
At no load in 4th (4L) gear	79.9
Bystander in 8th (4H) gear	82.0

CENTER OF GRAVITY

Horizontal distance forward from centerline of rear wheels	30.6" *(778 mm)*
Vertical distance above roadway	33.0" *(838 mm)*
Horizontal distance from center of rear wheel tread	0.1" *(2 mm)* to the left

TURNING ON A CONCRETE SURFACE

Turning radius—with brake right 134" *(3.40 m)* left 132" *(3.35 m)*
Turning radius—without brake right 171" *(4.34 m)* left 169" *(4.30 m)*

Turning space radius—with brake right 146" *(3.71 m)* left 144" *(3.66 m)*
Turning space radius—without brake right 184" *(4.68 m)* left 183" *(4.64 m)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: None

Maximum force exerted through whole range:	3595 lbs	*(16.0 kN)*
i) Opening pressure of relief valve:	NA	
Sustained pressure with relief valve open:	2845 psi	*(196 bar)*
ii) Pump delivery rate at minimum pressure:	17.2 GPM	*(65.0 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	15.6 GPM	*(58.9 l/min)*
Delivery pressure:	2205 psi	*(152 bar)*
Power:	20.0 HP	*(14.9 kW)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	26.3	*668*
B	9.8	*250*
C	11.8	*299*
D	11.5	*291*
E	12.2	*309*
F	6.9	*176*
G	29.1	*740*
H	0.6	*16*
I	12.3	*313*
J	22.2	*564*
K	15.6	*396*
L	38.4	*975*
M	22.0	*558*
N	33.9	*860*
O	7.2	*184*
P	46.2	*1174*
Q	36.9	*938*
R	22.4	*570*